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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,524	01/16/2001	Bausan Yuan	07303.0031	2126

22852 7590 12/16/2004

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EXAMINER

KIM, PETER B

ART UNIT PAPER NUMBER

2851

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/759,524

Applicant(s)

YUAN ET AL.

Examiner

Peter B. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-29,31-48,50-52 and 76-92 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-29,31-48,50-52 and 76-81 is/are allowed.
- 6) ☒ Claim(s) 82-92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 102004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments filed on Oct. 28, 2004 have been fully considered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 82, and 87-92 are rejected under 35 U.S.C. 102(b) as being anticipated by Sperling et al. (Sperling) (5,815,246).

Sperling discloses in Fig. 1, 2 and 3, a stage assembly for manufacturing semiconductor wafers, comprising: a stage (5) to position a substrate, the stage being moved by a first member (51, 53, 59) of a force generator (45, 47, 49) in response to a wafer manufacturing control system (col. 12, lines 1-34); a base or a movable member (43), having an upper side (Fig. 1), supporting the stage movable in response to a reaction force generated by a second member of the force generator (57, 55, 61), at least one pneumatic bearing (71) to support the base to movable along a first and a second axis and rotatable around a third axis, where the axis are orthogonal to each other (col. 10, lines 4-31) relative to a stationary surface (69), and at least one actuator (73, 75, 77) to control movement of the base, the movement being caused by at least one of a disturbance force and a reaction force (col. 11, line 30-col. 12, line 34). Sperling also discloses moving the stage and the base in the opposite direction and traveling in inversely proportionate distances corresponding to a stage mass and a base mass (col. 11, line 30-col. 12, line 34). Sperling discloses the base has at least one degree of freedom, and the at least one actuator is capable of

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constraining the movement of base in at least one degree of freedom and generating correction forces in different direction and torque (col. 10, line 32-col. 12, line 34). Sperling discloses a first and second actuators generating correction force in different directions passing through a center of gravity of base and a third actuator generating a correction torque around a direction different from the first and second direction. (col. 11, line 30-col. 12, line 34). Sperling discloses a projection lens assembly (25) comprising the stage assembly, an object on which an image has been formed by the lens assembly and a lithography system and an exposure apparatus comprising the projection lens assembly (Fig. 1) and a device manufactured with the exposure apparatus and a wafer on which an image has been formed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 83-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sperling et al. (Sperling) in view of Goldfarb (4,257,600).

Sperling discloses the claimed invention as discussed above; however, Sperling does not disclose the supporting parts including a planar layer and a spherical layer. Goldfarb discloses a bearing with a planar layer and a spherical layer (Fig. 2, ref. 42). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the bearing of Goldfarb to the invention of Sperling in order to facilitate the movement of the movable member as taught by Goldfarb in col. 3, line 67 – col. 4, line 15.

Allowable Subject Matter

Claims 17-29, 31-48, 50-52, and 76-81 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

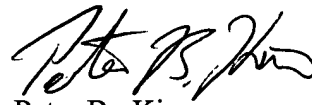
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter B. Kim whose telephone number is (571) 272-2120. The examiner can normally be reached on 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Peter B. Kim", is positioned above the printed name.

Peter B. Kim
Primary Examiner
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December 12, 2004.